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ORIGINAL ARTICLES.

SOME USES OF LOBELIA INFLATA.

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Perhaps little that is absolutely new can be said about Lobelia, but "I would stir up your pure minds by way of remembrance."

Within the month past, four men have come to me with commencing whitlow. They had been told, each by a different doctor, that nothing but free incision could prevent the loss of one or more of the phalanges, with more or less permanent deformity. All were treated alike, and all recovered without incision except a painless cut through the skin to let out a little pus that had collected just beneath the surface. The finger was surrounded by a moderately thick layer of cotton, around which was wrapped a couple of thicknesses of rubber tissue, and all confined by a light roller, the finger held upright and the cotton saturated with tincture of Lobelia, a supply of which was given the patient with directions to keep the cotton constantly wet.

Now I have no idea that there was anything in this treatment new to any one of those four doctors. But why did they not use it? Is it too simple? Or is it too expeditious? Or is it unscientific because unauthorized by some ponderous twenty-volume surgeon on the other side of the Atlantic?

My grandfather migrated to Ohio during the present century, and it was a tradition with us as youngsters that he learned the value of the local uses of Lobelia from the Indians. The story was, that when an Indian received a punctured wound from knife, arrow or bullet, if it was not immediately fatal he bound on it a poultice of powdered lobelia leaves, and when that was not available he filled the wound with *Scultahwahbah*, and fully expected to recover. I have an idea that *Scultahwahbah* was the Indian's stagger toward the old Irish Usquebough, which had somehow entered into their tribal vocabulary. Our family tincture was made by filling a bottle with the leaves, and pouring in all the whiskey it would hold. Punctured wounds, and wounds made by rusty iron, copper and brass were dressed with a compress made of finely scraped linen lint (cotton would not do at all) saturated with this tincture, and

we religiously believed that lock-jaw was locked out. A great many years ago it was recommended in the "*Charleston Medical Journal and Review*," for use in tetanus, but it is a long time since I have seen a report of its having been used. No case of general tetanus has occurred in my practice, but several have had the classical symptoms of the first stage—stiffness of the neck, sore throat, inability to masticate food, difficulty in swallowing, and interference with speech—sufficiently severe to give both patient and doctor no little anxiety. In all these cases, no matter what the cause or condition of the wound, it, and what was deemed a sufficient area on the proximal side, was dressed with tincture of Lobelia constantly applied, and in every case in less than forty-eight hours all threatenings of tetanus had disappeared.

Strict justice to Lobelia requires me to add that at the same time Gelsemium was administered in full doses, and the patient was not left until there was dilated pupil and slight oculomotor paralysis, as shown by irregularly varying diplopia and this action of Gelsemium was maintained until all symptoms of tetanus were gone. It is true the power of this treatment would have been more clearly demonstrated had expectant treatment been pursued until the general body muscles were involved, but I preferred that some other doctor and his patient should do the expecting.

It is my firm belief that, if in all cases where amputation has been done for the relief of tetanus the stump had been treated by the constant application of Lobelia, the results would have been much more satisfactory than they have been. Whether its local use would be beneficial in those cases where tetanus comes on after the wound has healed, can only be told by trying it. A remedy that will prevent deep suppuration in a felon after the periosteum has become implicated has no mean penetrating power, and in a disease so generally fatal as tetanus it is worth trying.

When the deep palmar fascia has been bruised and threatens to suppurate, it will do right royal service if used in the same way as for a felon. The only preventive treatment that can in any near degree compete with it, I learned long ago from a master painter in a large carriage manufactory. His plan was to apply a bandage of many thicknesses as tightly as it was safe to do, and then have the patient hold the hand for some time in a case of copal varnish. He thus cured many cases where doctors, and even the professor of surgery in a leading medical college declared suppuration to be inevitable.

On account of its sedative and paralyzant action on the motor nerves, it is the most satisfactory dressing I have found for use in the crushes caused by machinery, as well as those happening to miners and quarrymen. It is almost equal to carbolic acid for dulling sensation, and has none of its dangers; and it prevents twitchings, which are sometimes so annoying, best of any local application.

It is, perhaps, not the best dressing to use after amputation if the surgeon can have constant supervision over the patient. But to the busy doctor who can see his patient but once or twice a week, and in the meantime must leave him amidst filthy surroundings and in the care of ignorant and careless attendants, it is an unmixed good. He can lie down serenely and sweetly sleep, knowing that no pus producing "cuss" or coccus will invade the dressing until repair is complete.

The results from its internal use have not been so very brilliant as to make me very partial toward it except for one condition, and that is the one causing "throat cough," for which the following prescription "is the sovereignest thing in the world."

℞		
	Tinct. Lobelia Leaves	℥ ss
	Bloodroot	ʒ j
	Oil of Spearmint	♏ ss
	Simple syrup to make	4 ℥

M. Sig. Take half-teaspoonful, undiluted, every two or three hours, and take neither food nor drink for fifteen minutes afterward.

The local as well as the general action of the bloodroot is peculiarly adapted to those half-hysterical, half-chlorotic females who are the principal possessors of that annoying thing, "throat cough."

Quite often the administration for a few days of 1-5 grain of calomel, one-half hour before each meal, will render its remedial action more prompt and satisfactory.

THE SYMPTOMS AND TREATMENT OF VARIOUS TYPES OF APPENDICITIS.

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[CONCLUDED.]

Surgical Cases of Appendicitis.

The number which comes under this category, in my opinion, is not very large, and should include those in which tentative measures have failed, or threatening symptoms suddenly develop. It will be observed that the position here taken on radical measures leans, strongly, towards conservatism. This is done advisedly; for, while we must admit that to surgery we must turn as our only resource for saving life in all serious cases, yet, that this must be availed of in every case, in my judgment after a fair experience with the malady, is a mistaken conclusion.

In most of our abdominal sections for appendicitis, the large incision and the necessary damage leaves a breach to be filled only by scar tissue which frequently yields to intra-abdominal pressure, and favors ventral hernia. Very true this consideration should carry little or no weight when a life is in imminent danger, nevertheless, to a man who depends on his labor for a living, it becomes a serious matter as, in any event, this type of hernia is quite incoércible to the truss.

On this important question of radical measures, the opinions of surgeons are widely at variance. For example, Mercier, of Montreal, would operate only when by the persistance of a tumor, recurrence, or impending perforation, it was believed imperative. Duret and Montestie, of Lille, Halbert, of Waco, Texas, Quenu, Bouilly, Reynier and Monard, of France, take a similar position. Jones, of Omaha, Savage, of Pittsburg, the late Dr. Ross, of Toronto, Nelaton, Verneuil, Routier and others, though not so conservative, occupy similar ground. Against these are arrayed those who urge immediate surgery, Cordier, of Kansas City, Halsham, of London, Hoffman, of Philadelphia, Morris, of New York, Murphy, of Chicago, Fairchild, of Iowa, and a host of others.

Fendler is of the opinion that the indications for operation in this malady have been too much enlarged on by Americans. Von Bergmann would advise operation in all cases when pus is present.

The shock of operation is always very great, as we might expect, when a patient is in high fever and the vital powers are greatly depressed. More than one case has been under my observation of even the non-suppurative type quickly ending mortally after operation. In some of these cases, probably, if the system had not been additionally depressed by a fresh lethal agent introduced by full pulmonic anæsthesia and a highly inflamed peritoneum opened, recovery might have ensued. It is my firm conviction that an ill-timed operation for appendicitis, by which it is to be understood one performed unskillfully or in the absenceof perforation or suppuration, may deprive one of his only hope of surviving.

This operation is one of the most difficult and dangerous in surgery, and, should not be recommended unless conditions justifying it are most urgent and distinctly accentuated.

Often the relation of the medical-attendant becomes exceedingly embarrassing. His position is an extremely responsible one, as with him the question of the desirability or the necessity of an operation must rest in most cases. To operate too early is a mistake; to operate too late is certainly fatal. If only we could determine just the right period for interference, then surgical would be the ideal treatment in severe or desper-

ate cases. But we cannot. Hence, under all circumstances, there must be an element of uncertainty and, consequently, fatal issue must frequently follow operations in serious cases.

Technique of Operation.

Evidently, if we have varying types of appendicitis, we must vary our modes of operative procedure.

If we shared in the views of certain operators that, under all circumstances and in every case, we must open the general cavity of the peritoneum, search for and remove the appendix, there would be no room for questioning the extremely serious character of the operation. We would be compelled to open widely through the abdominal walls for full exploratory purposes. It may be well to remember, however, that at times the appendix is not in the peritoneal cavity at all, but lies rolled up under the cæcum and is incorporated in the bed of loose connective tissues on which this rests. It may, too, be well to know beforehand that we sometimes find no appendix, but a remnant only, a thin, round, tendinous band occupying its place.

But most important of all to bear in mind in this class of operations, is that though, generally, the appendix is justly blamed as the source of the trouble, sometimes it certainly is innocent. We seem to have forgotten that there is such a pathologic state as typhlitis, suppurative and perforative. Sometimes, we will find the cæcum opened by an ulcer at the root of the appendix or through some part of its walls. Treves and Lamphear have reported such cases. All will admit that to search for or resect the appendix is the proper course in certain cases. In some, however, certainly this is needless and greatly adds to the gravity of operating.

In one of my cases the seat of perforation was at the root of the appendix in the wall of the cæcum. In another, a negress, the posterior wall of the cæcum was perforated, and the appendix was found entirely free from disease. The late Dr. Rand, of Brooklyn, found a ruptured appendix in a strangulated hernial sac, the case ending fatally.

Gerster, Abbe and Page report serious results after amputating the appendix through the small intestine being obstructed in consequence of becoming adherent to the stump and sinking. Barton, of Philadelphia, urges against the necessity of, *invariably*, either seeking for or removing the appendix.

In the majority of operative cases we have to deal with an extra-peritoneal abscess. Adhesive inflammation has walled off the purulent exudate and fæcal leakage. If we operate at the right time, before the retro-peritoneal or meso-cœliac tissues become the seat of secondary infection, we have accomplished quite enough when we have opened the mass and drained it leaving the appendix to itself unless it rises into the wound and is immediately under the eye. Although this, from a theoretical standpoint, may be regarded an incomplete operation, as the diseased appendix is left behind, never have I known a case so treated to give rise, secondarily, to disturbances such as demanded an ulterior operation. The probabilities are that the vitality of the organ has been destroyed and it undergoes atrophic change.

For those perityphlitic phlegmons we make an incision parallel with Ponpart's ligament, about an inch and a half anterior to, and parallel with the anterior superior spine of the ilium. A short, deep incision over this area will bring us down to the fascia transversalis. As we reach this, we must pause, and endeavor by palpation, to determine the state of the tissues underneath. Now, we carefully expose the peritoneum, and divide it over the point of fluctuation. Sometimes all the tissues, from the peritoneum outward, are so infiltrated and bound together as to render isolation of the structures quite impossible on dissection. In operations for this class, there are two things which, among others, we should be particular to avoid: viz., to not wound the cæcum, and to not penetrate the peritoneal cavity. We may in this type employ cocaine with singular satisfaction, and thus obviate the post operative vomiting of ether anæsthesia.

This is the type which yields the best results after operation, and which, when neglected, leads to the most disastrous consequences. Life is imperilled by delay, through consecutive change, a widespread diffusion of pus, resorption

and auto-toxæmia. Nature makes desperate efforts to discharge the lethal debris forced by the disintegration of tissue. At one time establishing a drain by the most tortuous route, and again opening into the alimentary canal to discharge the befouled accumulation through the rectum. Cases have come under my notice in which the pus took an upward course breaking through and draining by a fistulous gap in the thin scar-tissue of the umbilicus. Sometimes pus penetrates and enters the fundus of the bladder, to be thrown off by the urine; again it passes down under the pelvic fascia, descending within the sheath of the lavator-ani, to leak through the verge of the anus or the ischio-rectal fossa much the same as a local abscess. Other cases we will see, in which pus extravasates the overlying muscular planes; arrested at the median-line by the fusion of the aponeuroses, it gravitates backwards and appears on the opposite side. Again, and more commonly, pus makes its way into the retro-peritoneal tissues, displacing the kidney, even penetrating the root of the diaphragm and discharging into the pleural-cavity. There are neglected cases where, at the proper stage, surgery alone cuts short all danger of infection and insures rapid recovery.

Before proceeding to the management of the next and gravest phase, appendicitis with intra-peritoneal perforation, a few comments will be submitted on the operation performed for the *chronic relapsing* type.

In this class attacks recur at intervals, with varying degrees of intensity. Catarrhal inflammation destroys the adenoid lining of the appendix, entirely or in part; or, ulceration may anywhere open its lumen.

It is in this chronic or relapsing type, with perforation that we will most commonly find minute scybalæ of fæces or foreign bodies, within or outside the perforated organ. Various operators report the most remarkable finds. For example, Marker has found a black pin; Ashton the fin of a fish; Ransahoff a 32-calibre cartridge; and Wyman, a large white bean. Jonas cites a most remarkable case of this character. A woman, 49 years old, came under his care presenting symptoms simulating appendicitis, with a tumor as big as a hen's egg, over McBurney's point. The tumor was hard and painful. She had severe, though not constant pain, with chills, and a temperature of 102°. No vomiting. On operation, the bowels were found matted together, by extensive adhesions, but there was no pus. The appendix was normal. The tumor simulated a neoplasm, and it was found impossible to remove it. The abdomen was closed and a fatal prognosis given. But, thirty days later, the patient passed by the rectum an enterolith, the size of a lemon and as hard as a stone *

The period recommended for operative interference in this type, is during the interval of attacks, while the parts are quiescent, and the individual is in good form to sustain the operation. In an operation undertaken for this type, the general aim of the operator is to find the appendix, after being first assured that the cæcum is not compromised.

If by any means at our command, we could fix the exact site of the appendix before operation, it would require but a short incision, and excision would be rendered vastly less difficult. But, as previously stated, the fact is the appendix, if present in the peritoneal cavity, may, after pathological changes, occupy the most devious positions. Very often, it eludes detection by digital exploration, even though the finger has repeatedly swept over its bare surface. Plastic inflammation with fibrous changes may have incorporated it so intimately with the surrounding structures and even with the sheaths of the great blood trunks, that nothing less than the most delicate, cautious and protracted dissection will expose it. It's tip has been found adherent to the gall-bladder, to the kidney and to the stomach, and every operator knows how commonly the organ is dragged far down and firmly locked with the deep pelvic structures.

With a knowledge of these facts, it is obvious that nothing less than a free, large incision should be made through the linea semi-lunaris; as this will bring us down inside the cavity of the peritoneum, and into such a situation

* Recovery then took place.—(*Annual of Universal-Medical Sciences*, Sarjou's Issues of 1894-1895.) From this source, most of the accessory literature in above article is taken.

as will permit of the fullest exploration. The large incision will enable us to proceed with precision and bring the organs under the eye; for in ferreting out the appendix, nothing but direct vision will enable us to recognize it, in a considerable number of cases.

The caput-coli is a guide of great value. Generally, when we have this accurately located, by following down the course of its anterior, longitudinal fibres we come on the base of the appendix. This is sometimes impracticable, and always exceedingly difficult of execution. Our patient may have a very thick layer of abdominal fat. We will have in nearly all cases a considerable infiltration of the abdominal wall. There is, commonly, flatus in the small intestine, which forces it into the incision, when our operative field is at once obscured, or quite out of reach. Tedious and continuous effort, however, is generally rewarded by discovering the appendix; though it is well to know that, sometimes, the most experienced surgeons are foiled, and forced to give up the search.

But, assuming that the appendix is discovered and brought into the incision, how shall we amputate it without leaving a tendency to fistula?

In the healthy, vigorous subject the peritoneal surfaces unite with surprising rapidity after the serosæ are pressed together and retained by the Lambert stitch; but the most of these subjects coming under operation for chronic appendicitis, are in a depressed state of health, in consequence of which the plasticity of the tissues is greatly reduced and thus, in spite of all precautions, solid union of the stump may fail.

In order to obviate the tendency to fistula after excision of the appendix, it has been my custom to carry the closed end of the stump and suture it to the lower-most edge of the incision, or on to the parietal peritoneum; and if possible to drag the free end into the gap, closing it in between the muscle fibres, This step makes its adhesion entirely extra-peritoneal and, should there be a tendency to leakage, as the wound unites the gaping orifices of the stump is caught up and solidly closed in the process of union of the incision.

In this type, when no pus is encountered and every possible source of contamination has been avoided, we should close the abdominal wound hermetically without drainage. This will reduce the period of convalescence and vastly diminish the chances of subsequent ventral hernia.

Perforative Appendicitis, with purulent and feculent infection of the cavity of the peritoneum depends on primary and immediate connection between the lumen of the appendix and the serous space, or the consecutive bursting of an encysted perityphlitic abscess, is the gravest form of appendicitis, or perityphlitis, and all accord that without the aid of surgery death is inevitable. It may, moreover, be added that under even the most favorable auspices the operative mortality is large.

The conditions which confront us and the signs of profound constitutional disturbance, warn us that death is not far off. Often, the question which is forced on us, is not how shall we operate, but rather, shall we hazard any radical measure.

Our patient's general condition is such as to contra-indicate any protracted operation, which the one to be undertaken always is; therefore, our only justification for it is that it is the only possible alternative however doubtful may be its results.

Formidable difficulties lie in the way of the operator. We can all appreciate the importance, in this desperate class, of rapid operating, or reducing the anæsthesia, and of completing our manipulations within the peritoneum within the briefest period of time.

Pathologic changes have produced extensive derangement of the normal anatomical relations and an operator must now depend on his experience and practical acquaintance with this peculiar and unusual type, rather than on his knowl of the healthy structures.

Under all circumstances we should insist that the operation be thorough and complete, unless serious symptoms suddenly develop.

A large incision will hardly do here, else we will almost inevitably invite an extension of intestine to embarrass us. As in operating for chronic appendicitis, our incision should be to the outer side of the linea semi-lunaris. We are com-

pelled to depend, in a large measure, on the sense of touch to detect the appendix in the tympanitic abdomen. With the finger passed through the incision, we grope for the appendix and for pus accumulations. If the perforated or gangrenous appendix comes up into the wound, we may quickly deal with it. But, in not a few instances such profound collapse sets in after the peritoneum is opened that we may not tarry to find the appendix, but must hurriedly bring the operation to a close however incomplete it may be.

It may, perhaps, seem like supererogation to inquire if at this stage we should flush the peritoneal cavity with antiseptics or sterilized fluids; or whether we should depend entirely on drainage?

Antiseptics have long since been cast aside in peritoneal surgery. It is well to know that warm water will not wash away pus from serous surfaces. My own experience has rather inclined me to discard flushing in all these cases, unless the quantity of foul material is excessive. Having cleared the peritoneal cavity of all foreign material and left an ample vent for the residue, we have done quite enough; besides, we have greatly reduced the time, so dangerous an element in these cases.

Hospital or Home Treatment.

It does not appear that anyone has yet attempted to determine the relative frequency of this disease in the various classes of society. It seems to prevail, however, with equal frequency among all, without regard to social caste. Evidently, then, we must be prepared to treat it among the middle and lower classes more frequently then among the wealthy, for, in numbers, they predominate.

Can operative cases be managed at home equally as successfully as in a hospital?

It is my conviction that they can be, and even more so. This is no novel or theoretical notion of mine, for I have formally taken this ground in the Academy of Medicine, and have statistics to support the statement.

For the mechanical part of the treatment, with a large staff of assistants and nurses, besides an abundance of instruments, it at first seems that a hospital equipment gives better guarantee of results than could be provided at one's own home, but like a great many theories, strong from the speculative side, this one is delusive in practice.

To begin with, to move a patient in an advanced stage of appendicitis out of his bed exposes him to draughts, and the jolting consequent to transport to hospital adds fresh danger and diminishes the prospects of recovery. No hospital constructed can, or ever will, provide the sympathetic, unremitting attention of a well-kept home. Too many assistants only stand in one another's way. Of instruments it may be said the fewer the better, what only is needed is skill and discretion in the use of them.

Of late years the too general practice of sending these cases to hospitals has operated to the disadvantage of the patient and has tended practically to remove from one's *clientele* many cases of unusual interest and profit. Surgeons give their services to our hospitals without compensation, and why should they not also, among the poor and worthy outside, on the representation of the family physician, occasionally gratuitiously perform an operation, or so scale their fees that those in moderate circumstances may employ them to operate the further conduct of the case being in charge of the family physician?

The loud and general complaint, now among practitioners is over an excess of hospitals and their abuses, for which they themselves are largely responsible, and which if remedied, the work of reform must commence with themselves.

To Sterilize Milk.

To sterilize milk, Malcolm Morris directs thus: Place the milk in a clean bottle and plug the mouth with clean cotton wool. Then stand the bottle in a suitable metal vessel so that it is raised about half an inch from the bottom, pour cold water into the outer vessel until it attains the level of the milk, and heat slowly on a stove until the temperature of the water reaches boiling point. Now take the vessel from the fire and cover over loosely with a piece of woolen cloth for half an hour, at the expiration of which remove the bottle and store it in a cool place.—*Pub. Opinion.*

THE NUTRIENT VALUE OF SOMATOSE.

SAMUEL WOLFE, A. M., M. D.,* PHILA.

In the various conditions attendcd with malnutrition,it frequently becomes necessary to administer in addition to the ordinary food a certain amount of some concentrated albuminous nutrient with the object of supplying to the patient as much tissue-making material as possible. In his selection of such a supplementary food the physician is confronted with a large number of preparations, and it is therefore of interest to briefly review the various requisites that should belong to an albuminous food-product. In the first place its albuminous constituents should be present in a concentrated form with as little inért material as possible. Secondly, they should exist in a form to be readily digested and assimilated without giving rise to gastric or intestinal irritation. Thirdly, the preparation must be palatable and well relished, and not liable to excite repugnance when given for a long period. These are the three chief essentials of an albuminous product, but they are seldom realized in the same preparation. Many of the products in the market contain only a small percentage of available albumins and a large quantity of useless ballast which tends to derange the gastro-intestinal tract. Others are characterized by a disagreeable and repellant taste or odor which causes them to be rejected by many patients, especially sensitive women and children.

In the present communication I desire to relate my experience with Somatose, a new albuminous food-product which possesses many valuable features to which I will briefly refer. It consists almost exclusively of albumoses, which, according to many physiologists, constitute the most available form of administering the albumins, containing but a minimum of peptones, which in a pure state are now generally considered as of limited nutritive value and as productive of gastric and intestinal irritation. On the other hand, it contains the so-called nutrient salts of meat. Somatose appears in the form of a powder, which is freely soluble in ordinary fluids, and being practically tasteless and odorless can be added to milk, beef broths, coffee, tea, etc., without imparting the least flavor. This is certainly a great advantage in a food preparation which has to be administered for some time.

The field of utility of Somatose is represented by all diseases attended with failure of nutrition and exhaustion of the vital powers, of both acute and chronic character. Owing to its freedom from irritating effects upon the stomach and intestinal canal, it has been found well adapted for persons suffering from acute and chronic gastritis, ulcer and cancer, cholera infantum, etc. In acute febrile diseases, as pneumonia and typhoid fever, some very favorable reports have been published on Somatose, showing that it is an acceptable and assimilable nutrient even in conditions of great prostration of the vital powers. Chronic conditions attended with emaciation and exhaustion, as pulmonary tuberculosis, are greatly improved by the addition of Somatose to the diet, while in anæmia, chlorosis, and convalescence from acute disease it is very serviceable. I desire also to call especial attention to the fact that this preparation has a marked influence in stimulatiug the appetite and digestion, enabling the patient to dispose of a larger amount of other foods than would otherwise be the case, and this is a valuable feature not possessed by other food-products.

After a fairly liberal use of Somatose for some months, while I have not had any striking results, I have become convinced that as a food product it has a decided virtue. It is sufficiently acceptable to the stomach to admit of administration in almost any case. Indeed to any one with an appetite for food, it is relished equally to the delicacies of the table.

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In none of my cases was it ever refused on account of objectionable taste, nor tired of from continued use.

I gave it to three nursing mothers, where the milk was failing in the early period of lactation, with the effect of fully restoring the secretion with gratifying promptness. In the one case, no other symptom was present, and the failure threatened in the third week after the accouchement. In the second there was decided anæmia, besides quite extensive organic heart disease, and the failure occurred during the administration of ferruginous and other tonics, two months after the birth of the eighth child. In the remaining case the symptoms resulted in the third week, after a most obstinate intermittent fever had yielded to repeated large doses of quinine, while the patient was taking iron and strychnia.

In two phthisical cases it was given, the one being quite advanced and beyond hope of any material benefit, and in this case soon abandoned because the results from any food product were perfectly unpromising. In the other, it was used for five or six weeks, during which time the patient held her own well, without, however, gaining in any special way more remarkably than on hyper-alimentation with the Somatose left out.

A little girl who had run down a great deal while passing through the stages of a subacute abscess involving the glands of the neck, took the food well and improved notably in condition under it.

A young woman, who had recovered with the usual disfigurement from extensive syphlitic ulceration of the nasal bones and tissues and the adjacent parts of the face, and who still suffered occasional storms of neuralgia and nocturnal headache, did well while taking it with appropriate drugs, while the latter alone with good diet had given more indifferent results.

A young married woman was wasting in flesh, her menses had disappeared and her strength was much depressed. Somatose with a tonic was prescribed, and although subsequent observations showed that she was in the early months of her third pregnancy, yet the immediate improvement on the use of the food may reasonably be ascribed at least in part to its effect.

Another young married woman, who had made an excellent recovery from her first confinement, five months before, and was not nursing her child, began to lose flesh and strength, and also suffered from a slight gastro-intestinal disturbance. A little simple medication, and the use of Somatose rapidly restored her.

From these and other experiences in the same direction with the preparation, the writer would regard Somatose as a valuable agent in all cases where nutritive material needs to be introduced into the system in a form at once concentrated, easily and rapidly assimilated and unirritatiug. The improvement in the appetite which was noticeable in some of the cases, seems to be further support to the view that this combination of properties is present in a high degree in this product of the skilled chemist.

A Young Mother.

I wish to report the case of the youngest mother in Virginia. Annie H—— was born in Bland county July 15, 1885, and September 10, 1895, she was delivered of a well-formed child weighing five pounds. She was only ten years and nearly two months old. The girl has no developments of a woman, although she has menstruated regularly since she was five years old.

The labor was a short and uneventful one, and two hours afterward the child-mother wanted to get up and dress, and would have done so had she been permitted.

There were no developments of the mammæ or secretion of milk. The baby was nourished through its short existence (as it only lived a week) by its grandmother, who has a child only a few months old. The parents of this child, Mr. and Mrs. J. P. H.——, are prosperous, intelligent and worthy people, and there is no doubt of their child's age.

The child is now well and plays about with the other children as if nothing unusual had happened.—*C. W. Cleaves, M. D., Wytheville, Va., in Med. Rec.*

COMMUNICATIONS.

CIRCUMSTANCES UNDER WHICH CHLOROFORM IS PREFERABLE TO ETHER AS AN ANESTHETIC.*

GEORGE W. GAY, A. M., M. D., BOSTON.

It may seem rank heresy for one who was educated at the Harvard Medical School and who has practised surgery under its shadow for a quarter of a century to advocate the use of chloroform as an anesthetic under any circumstances whatever. Those who have been educated, and have practised surgery in other parts of our country, or in foreign lands, can hardly realize the antipathy which formerly prevailed against chloroform throughout New England, and which exists to a very great degree at the present day. Aside from those gentlemen, who saw service in the late war, where for various and obvious reasons chloroform was the almost universal anesthetic, very few are to be found in that section who use chloroform in preferenee to ether for ordinary surgical purposes. Should a surgeon in our vicinity meet with a fatal accident under the former agent, he would be placed in an embarrassing position in the eyes of both the profession and the public, and, under ordinary circumstances, would get little sympathy from either. Very likely he would be subjected to some such catechism as the following:

"Doctor, your patient died under chloroform?"

"Yes sir."

"Were you not aware that choloform is more dangerous than ether?"

"Yes sir."

"Then why did you use it?"

In an ether community it would not be sufficient to say, in answer to this question, that chloroform is pleasanter or cheaper, or acts more quickly or in smaller quantity, or that it is used in England. All these points would avail nothing in comparison with the one question of safety. That is the keystone to the arch, and all other considerations are of secondary importance.

In the Northern, Middle, and Western States of this country ether is the principal agent used in ordinary surgical practice, while in the Southern States chloroform has the preference.† In foreign countries the latter agent is probably the favorite anesthetic in a majority of cases. The fact that practical surgical anesthesia by means of sulphuric ether had its birth and origin in Boston has nothing whatever to do with its popularity in this country. Our community is a conservative one, and in this matter the foundation of its faith and preferences is safety.

It is impossible, nor is it necessary to state in exact terms the relative safety of chloroform and ether. That there is a decided difference between the two drugs in this respect cannot be doubted by any candid observer and reader of the literature of the subject. It is true that many practitioners of large experience have never met with an accident in the use of chloroform. It is also true that over four hundred deaths from this agent have been placed upon record, and no one can form any correct idea of the number of unrecorded fatalities. In 1889, Dr. Laurence Turnbull‡ placed the latter at one hundred cases, which cannot be considered an extravagant estimate. No such record is claimed against ether by even its strongest opponents. The fatalities from ether at that time on record amounted to about sixty. Cheever§ says that the largest and most reliable statistics indicate that ether is about ten times as safe as chloroform.

Much has been said and written as to the exact method in which death takes

*Read at the meeting of the American Surgical Association, in New York, May 30, 1895.

†Wood's Reference Handbook of Medical Science.

‡Artificial Anesthesia, 1889.

§Lectures on Surgery, p. 27.

place under the influence of these two drugs. The common opinion is, that ether kills by asphyxia, and chloroform by cardiac paralysis. The Hyderabad Commissions, of which Dr. T. Lauder Brunton, and Surgeon-Major Lawrie were members, declared in their report, that chloroform "never causes sudden death from stoppage of the heart." Drs. Wood and Hare claim that chloroform is a cardiac paralyzant. In some cases the influence is most felt upon the respiratory centres, and in others upon the cardiac. So far as practical medicine is concerned it makes little difference, whether the heart stops just before or just after the respiration."‖

The accumulated testimony of the past fifty years tends to prove conclusively that ether kills slowly, chloroform quickly; that ether kills by asphyxia, chloroform by cardiac paralysis; that ether gives plenty of warning, chloroform often none whatever; that ether is safer in healthy and strong people than in the weak and prostrated; but that chloroform is nearly as fatal in the vigorous as in the debilitated. Ether does not demand any special skill in its administration; chloroform does. Proper treatment easily and effectually overcomes the unfavorable symptoms from ether; treatment oftentimes does no good whatever in accidents from chloroform. In short, ether is the safest general anesthetic known; chloroform is not.

In view of these facts the burden of proof in justification of the use of chloroform rests with the operator. Although plenty of authority can be found in favor of the stronger agent yet the fatalities take place just the same as ever, in spite of all the precautions which it is possible to take. Ringer says there are no conditions of age or health which forbid the use of chloroform as an anesthetic provided due care be observed in its administration.*† The Hyderabad Commissions claim the same immunity from danger. In the writer's opinion, such an assertion cannot be truthfully made of any known anesthetic, not even of sulphuric ether itself, which is the safest of them all.

Those who claim that the fatal results of chloroform are due to want of care and skill in its administration are casting reflections upon such men as Sir James Y. Simpson, the father of chloroform anesthetic, Erichsen, Billroth, Volkmann, Syme, Hunter McGuire, James Wood, Willard Parker, F. H. Hamilton, Alden March, Moses Gunn, W. W. Dawson, and many other skillful and reliable members of our profession.*‡ An agent, which is not safe in the hands of such men, is certainly not the most suitable one to be put into the hands of the rank and file of medical practitioners.

A strong, healthy young man desires to have a finger amputated or a felon opened. He breathes a few whiffs of chloroform, and without any warning stops breathing, and is dead. No operation has been done which could have produced any shock. Such accidents have also occurred in the dentist's chair many times. An autopsy is made, and perhaps some slight change in color is found in the pericardium, or capsule of one kidney, or some other variation which, under ordinary circumstances, would not have been noticed. That is all that can be found to account for the preventable catastrophe. Do such things occur under ether? If so, they are not put upon record, nor have they been observed in the larger hospitals in this part of the country. It is not quite safe to give ether under all circumstances; but the unfavorable conditions are apparent to any one familiar with anesthetics, and can be provided for or guarded against. There is nothing obscure, or irregular, or fulminating in its action, as in its more powerful rival.

Daily experience with a drug, under all sorts and conditions of circumstances in the care of the sick and wounded for over a quarter of a century without meeting with any serious mishap, gives one more confidence in that agent than all the reports of learned societies or so-called national commissions. There are not a few in our midst who have had just this experience, and they require neither argument nor statistics to convince them beyond the shadow of a doubt of the superiority of ether over chloroform for general anesthetic purposes. And yet, for various reasons the

‖Medical News, February 22, 1890.
*†Willard and Adler on Anesthetics.

*‡Therapeutic Gazette, August and September, 1890. Dr. G. Archie Stockwell, Detriot, Mich.

latter agent will doubtless continue to be used by a large number of practitioners in different parts of the world for all time. It is pleasanter to inhale, quicker in its action, more lasting in the effects less apt to be followed by nausea and vomiting, cheaper, less bulky, and not inflammable. Moreover, the accidents from chloroform are not sufficiently common to create that fear and distrust in the mind of the profession and of the public which demands its abandonment in surgical practice. Personal preference and prejudice, freedom from accidents in the immediate vicinity, and perhaps national pride, are factors which may determine not a few in their choice of an anesthetic.

The truth of this whole matter seems to be, that sulphuric ether, under ordinary conditions, is as safe as can reasonably be expected of any agent which produces such beneficent results; that chloroform is safe in a vast majority of instances, but that fatal accidents do occasionally occur under circumstances in which they were not anticipated, and that these accidents can neither be foreseen, prevented nor remedied; that under rare conditions no known anesthetic is entirely free from danger; that the greater comparative safety of sulphuric ether is slowly being recognized and hence that its use is gradually displacing to a certain extent, its more potent and more dangerous rival.

The writer submits that this question of the relative safety of the two agents under consideration, ether and chloroform, is decided as firmly and as surely in favor of the former by an intelligent and searching experience of half a century as it is possible to decide any scientific point in the affairs pertaining to human life.

In spite of all that can be said in favor of ether and against chloroform, the fact remains, however, that there are a comparatively few conditions under which the latter is the preferable anesthetic, and it is the main object of this paper to draw attention to these cases. In a general way it may be said, that all operations liable to be attended with spasm of the glottis, edema of the larynx or lungs, profuse secretion of fluids in the air-passages and tonic contraction of the muscles of respiration, can be done under the influence of chloroform with more safety and satisfaction than under ether. Chloroform does not obstruct respiration to the extent that ether does. It does not irritate the mucous membranes, nor increase the secretion of mucous, nor produce as much spasmodic action of the muscles of the throat and chest, as does ether. For these reasons it is superior, as an anesthetic, in the following diseases and conditions:

All cases requiring tracheotomy and esophagotomy as membranous croup; laryngitis, acute, chronic, traumatic, specific or tubercular; edema of larnyx or glottis; malignant disease of throat and neck; deep cervical cellulitis; deep tumors of neck, as bronchocele; foreign bodies in air-passages; foreign bodies in esophagus; bronchitis in the aged; asthma.

Doubtless this list may be extended by the gentlemen present. I speak principally of those affections in which I have had personal experience. A consideration of its use in obstetrics is omitted for obvious reasons.

Every one knows the difficulty, and oftentimes danger met with in trying to etherize a child suffering from membranous or diphtheritic croup. The irritation of the drug produces spasm of the muscles of the throat, and a free secretion of mucous, breathing is more or less obstructed, the color becomes livid, the veins distended, and, if strong enough, the child struggles in all the agony of suffocation. Under these circumstances a hasty tracheotomy must be performed with the attendant risk of hemorrhage and strangulation. Chloroform produces few if any of these symptoms. Given carefully, the respiration is not impeded, the child's quiet is not disturbed, and the operation may be completed in a deliberate and careful manner. I have performed a good many tracheotomies under chloroform and have never met with a mishap that could be justly laid to the drug. I can speak confidently and strongly upon this point, and from the best of all teachers, experience.

The same remarks will apply with equal emphasis to all cases of acute or chronic stenosis of the larynx, from whatever cause. Contusions, lacerations and fractures of the larynx are very likely to be followed by dyspnœa, which in some instances may require tracheal

incision. A few years ago a man in middle life was admitted to the Boston City Hospital, who had injured his throat a week before by his efforts to push down a bone which he supposed had become lodged. He could swallow only liquids and those with great difficulty. The dyspnœa was so pronounced that he could not lie down for any length of time, and he exhibited that peculiar restlessness which is so marked a feature in all cases of laryngeal stenosis. An examination by the laryngoscopist revealed an abscess in the region of the epiglottis, attended by extensive induration in the immediate vicinity. Tracheotomy was performed very satisfactorily indeed under partial chloroform anesthesia. The respiration was not disturbed in the least by the drug. Ether would have almost certainly aggravated the dyspnœa, thereby complicating the operation and perhaps diminishing his chance for recovery. The patient got well.

Deep cellulitis of the neck, although not a very common affection, yet is a very serious one, sometimes terminating fatally. It may be dangerous by reason of sepsis, of edema of the glottis and by suffocation from a rupture of the abscess into the throat. I have known of fatal results from all of these cases. The treatment to be effectual must be early and radical and consists in making a free opening into the centre of the diseased tissues. The importance of the structures involved requires that this operation shall be done carefully and deliberately. Pressure upon the recurrent laryngeal nerves and other structures is very apt to produce spasm of the glottis and impeded respiration. This condition of affairs is much aggravated by the irritating effects of sulphuric ether, but not by chloroform. Hence the latter is the better anesthetic for these cases.

A man was under my care a few years ago suffering from an attack of deep and extensive cellulitis of the front and both sides of the neck. Through a misunderstanding he was given ether preparatory to an operation; when partially under its influence the breathing stopped, the face became deeply cyanozed and death from suffocation seemed imminent. This untoward result was averted for the time by an immediate tracheotomy, forcible inflation of the lungs through a catheter thereby expelling the free fluids, and artificial respiration. He gradually failed, and died the next day from shock and exhaustion. Judging from the usual effects of chloroform under these circumstances, it is fair to suppose that the shock of the operation would have been much less under its influence, that tracheotomy might have been avoided and hence that his chances for recovery would have been increased notwithstanding the profound prostration resulting from the disease itself.

I was recently called to the hospital in the night to see a man just admitted with this affection. The dyspnœa was severe, attended by paroxysms that threatened serious consequences. A deep collection of pus was evacuated by the Hilton method, under chloroform, with the greatest satisfaction to both patient and surgeon.

Many years ago I was requested by one of my colleagues, Dr. Wm. H. Thorndike, to administer ether to an old gentleman preparatory to tracheotomy for malignant disease of the throat at the base of the tongue. The effects of the anesthetic were extremely distressing. However carefully given, however much diluted with air, the vapor produced the most violent spasm of the glottis, rendering respiration entirely impossible. The operation was finally done without any anesthesia, and, as may be supposed, with a good deal of suffering to the patient.

This case forms a striking contrast to that of a woman who was under my care some years later for malignant disease of the deep glands of the neck. Constant and severe dyspnœa resulting from pressure, presumably upon the recurrent laryngeal nerves, demanded tracheotomy. The operation was done under chloroform with great ease and with perfect relief to the patient. It would not be difficult to believe that ether would have acted as unfavorably in the latter as in the former case.

Spasm of the glottis, with impeded respiration, is peculiarly liable to occur in patients with foreign bodies in the air passages or in the esophagus. Operations for their removal generally re-

quire time and careful manipulation. They cannot be done hastily, as can an emergency tracheotomy for stenosis of the larynx, and, therefore, it is essential to use the anesthetic that will cause the least disturbance to the patient. There can be no reasonable doubt that in a majority of cases chloroform is preferable to ether under these circumstances. The writer once removed a bean from the lower end of the trachea by incision, successfully. The child was in collapse at the time of operation, and required but little chloroform to keep her still. She recovered. Ether was given to another child in the hospital many years ago for the purpose of opening the trachea to remove a piece of a match, with a fatal termination. These cases require very gentle handling in every way, and the amount of anesthetic, as well as the kind, is of very great importance.

Chloroform has been used by the writer in three cases of esophagotomy with much satisfaction. In a case of malignant disease, the esophagus was opened on the left side of the neck in the usual way for the purpose of guiding a staff through the pouch above the stricture down into the stomach, upon which to pass a Symond's tube. Later it became necessary to do tracheotomy on this patient. Both operations were performed under chloroform without complication. This agent was used in the case of a man who had swallowed a plate of teeth which had lodged at the lower end of the gullet. It was removed through an incision in the neck, with no difficulty as regards the respiration. I also removed a copper cent from the esophagus of a child three-and-a-half years of age by incision under chloroform. The little girl speedily recovered. The action of the anesthetic in all of these cases was satisfactory in every way, and I have thus far seen no reason for using any other agent under similar circumstances.

The only unfortunate result I have had while using chloroform was that of an old lady suffering a good deal of dyspnœa from a large goitre. At her request I made an effort to intube the larynx, leaving the question of extirpation to be decided later on. A little chloroform was inhaled without difficulty, but during my efforts to place the tube she gradually sank away, and died in a few minutes. I am inclined to lay this unfortunate result to her extreme prostration, which was necessarily increased by my manipulations in trying to introduce a tube into a narrow, displaced, tortuous larynx, rather than to the anesthetic. It would have been wiser to have let her alone. This is the only mishap I have ever had with chloroform.

Kocher, of Berne, has recently reported one thousand thyroidectomies for goitre. One death resulted from bronchitis following the administration of ether. There were no deaths from chloroform. He always begins the anesthesia with chloroform, and continues it with ether.*§

Old people suffering from chronic bronchitis or edema of the air-passages are not good subjects for ether, as the irritation tends to increase the secretion, which occasionally becomes so profuse as to drown the patients in their own fluids. This accident is peculiarly liable to occur in heavy drinkers, in those suffering from chronic urinary disease (as stricture and its sequelæ), and in those profoundly prostrated by any serious affection (as strangulated hernia and malignant diseases). I once lost a patient in this manner when about to operate for a gangrenous inguinal hernia which had been strangulated a week. He took the ether well enough at first, but as the operation was about to begin, it was noticed that his respiration was obstructed by mucous, which increased with alarming rapidity even pouring out of his mouth and nose. He died in a few minutes. It is doubtful if chloroform would have had this untoward effect upon the bronchial secretions.

The statement has recently been made by some of the German surgeons,*|| that while the immediate danger from ether is much less than from chloroform, yet that the remote danger is greater by reason of the emphysema, bronchitis and broncho-pneumonia resulting from the anesthetic. This complication has been noticed too seldom in this vicinity to create suspicion or distrust. Before attributing these events to the drug, it

*§Boston Medical and Surgical Journal, May 23, 1895.
*||Medical Record, May 25, 1895, p. 672.

would be well to carefully investigate all of the circumstances attending the patient, before, during, and after the operation. Not a few persons, especially in hospitals, get cold from exposure during this time, and occasionally it terminates fatally. While the accident is probably not as frequent as in the days of the spray, yet the custom of surrounding the patient with wet cloths is not quite free from danger. It is well known that a person gets cold more easily when asleep than while awake, and it is not unreasonable to suppose that the same rule may obtain during the sleep of ether and chloroform. At all events, until these factors are eliminated, it is evidently unwise to attribute these complications to the anesthetic.

Another fact to be borne in mind is the peculiar insensibility of the bronchial mucous membrane of elderly people to the presence of blood and other fluids during an operation, so that no warning is given till too late to be of any avail. Not a few cases of this sort have been saved only by an emergency tracheotomy and artificial respiration. These facts do not necessarily preclude the use of ether in these cases, but they teach us to be extremely careful in its administration.

The inflammable nature of sulphuric ether is always to be borne in mind, but in actual practice there are comparatively few cases in which the drug is contraindicated on this account. The statement has been made, that ignition has taken place at a distance of fifteen feet.** It is difficult to understand how such an accident could happen, unless an immense volume of the vapor was allowed to fall from a height upon the flame. In the accident room at the City Hospital in Boston, most of the night surgery for many years has been done under a six-light chandelier, the inhaler being not over three feet distant. No such accident has ever occurred in that institution. The vapor of ether, being heavier than air, falls more freely than it rises, and hence is not likely to ignite under ordinary circumstances with the flame overhead. I have seen the ether sponge ignited a few times by the actual cautery, but only when it was brought within at least a foot of the inhaler. The only harm resulting was a slight singeing of the eyebrows. These accidents were all preventable, and do not by any means preclude the use of ether as the anesthetic in these cases.

It may be said that chloroform must be more dangerous than ether in the class of cases under consideration, from the fact that these patients are usually weakened and debilitated by the disease, and hence more susceptible to heart failure. Experience gives little support to this supposition. The most characteristic feature of the danger from chloroform is the fact, that about forty per cent. of the accidents occur in apparently vigorous, healthy people about to undergo some minor operation, as the pulling of a tooth, incision of a felon, etc.,†† and that usually death takes place during the early stages of the anesthesia, oftentimes within a very few minutes, and before complete insensibility is reached. And herein lies the danger of using this agent in minor surgery. This fact should be especially borne in mind by those practitioners who use chloroform in minor operations, but would not think of resorting to it in capital cases.

In conclusion, allow me to submit for your consideration the opinion, that chloroform is a more satisfactory anesthetic than ether for operations liable to be complicated by difficult or suspended respiration; that in those cases it is reasonably safe, and that when carefully administered, it may be confidently recommended to the profession for this particular kind of surgical work.

**Wood's Reference Handbook of Medical Science, vol. I, p. 189.

††Wood's Handbook, p. 190.

Good Advice.

It is not wise for local boards of health to stand around with their hands in their pockets waiting for physicians with pet theories to determine the preponderance of evidence as to whether a sore throat is produced by a Loeffler bacillus or by some other bacillus, or by a coccus. If the attending physician pronounces it diphtheria or any quarantinable infectious disease it is their duty forthwith to quarantine and isolate and use such preventive measures as will best protect the public. If later it is found that the disease is not infectious the quarantine can be raised.

LOCAL ANÆSTHESIA BY THE INFILTRATION METHOD; ITS USES AND LIMITATIONS.*

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Surgery is constantly becoming more exact as a science. The skilful surgeon, with improved instruments within his reach, is able to accomplish more to save human life, correct deformities and relieve suffering than ever before. It would seem that with our present knowledge there was only one thing lacking, one element of danger that cannot be overcome, even though many a physician goes through life without ever having occasion to be personally reminded of this danger. I refer to death from the use of anæsthetics commonly employed, which may come constantly or may be deferred for days, weeks, or even months, and directly attributable to the anæsthetic. Statistics vary all the way from one death in every 7,000 to one in every 15,000 cases in the use of ether, and three to four times as many with cloroform, while of the more recent anæsthetics and the various mixtures, which have to a limited extent been used, none are shown to have especial advantages over ether and chloroform.

Of the means for local anæsthesia, cocoaine stands at the head, but with this drug the fatalities have been numerous; in fact, it has fallen into such disrepute that many physicians and dentists have abandoned its use altogether. Ether spray is applicable to a few surface operations only, and if not carefully used is apt to delay healing.

I wish to bring to the attention of this society a method of anæsthesia which is absolutely devoid of all danger, while at the same time it is applicable to nearly or quite 75 per cent. of general surgical operations, and to earnestly request each one of you who have not already used the method to give it a fair and impartial trial.

Last year in July Dr. Schleich, at the meeting of the German Congress of Surgeons presented the result of his labors in producing local anæsthesia by means of infiltrating the tissues with an innocuous liquid, reporting some three thousand cases, which demonstrated the entire success of the method. Nov. 27, 1894, Dr. H. O. Würdeman of Milwaukee, read before the Milwaukee Medical Society a paper on this subject, containing translations from Schleich's brochure, and the results of some experiments by himself and friends.

Previous to this, extracts from a letter of Dr. Cholena, of Berlin, to Dr. Wood, of Chicago, appeared in the Journal of the *American Medical Association* of May 26, 1894.

Since that time a limited number of surgeons in this country have tried this method to a greater or less extent. Careful experiments by Schleich demonstrated the fact that a liquid injected into the skin, causing a white wheal to raise, rendered the area within that wheal absolutely anæsthetic, the effect lasting usually about twenty minutes, during which time the skin within the area of the wheal could be cut absolutely without sensation. The anæsthetic effect being caused probably by direct pressure upon the peripheral terminations of the sensory nerves, assisted and prolonged by the minute quantity of cocaine or other narcotic drugs in the solution commonly used. There is also probably some chemical change, as the solutions lose their power entirely or in part when used at the temperature of the body. Pure water was found to produce anæsthesia, but the prodromal pain was too severe for its practical use. A .2 per cent solution of common salt caused the wheal to be anæsthetic without pain, excepting a slight burning sensation. From .2 per cent to 1 per cent solution of carbolic acid, .2 per cent solution of morphine, 3 per cent solution of sugar, potassium bromide, methyl violet, coffeine, antipyrine and other drugs all had an anæsthetic effect withou

*Read by title at National Association of Railway Surgeons, Chicago. 1885.

much prodrominal pain in solutions of certain strengths. Cocaine in a salt solution is efficacious in .2 per cent.

Each of the substances experimented with seems to have a particular strength in which it is most efficacious. Above and below this standard or zone they either become inert or lose much of their value.

Cocaine used in a .2 per cent would not be poisonous, even if two hundred syringefuls were used and it was all absorbed, which would be almost impossible.

"We must not lose sight," says Dr. Würdeman,† "of the cardinal fact that the anæsthesia exists only within the area infiltrated by these solutions, and that outside of that normal sensation remains, so that our method rests mainly on the principle of a complete artificial œdema of the field of operation."

"It has been asked why use the narcotic drugs at all; why the .2 per cent solution of salt is not used alone, if it will produce anæsthesia, as we claim? The salt solution is sufficient for all those cases in which we operate wholly within healthy tissues, although this is rarely the case in operations. We have always to deal with pathological changes, by which the normal sensibilities are more or less increased. The tenderness is occasionally so intense over inflamed tissues that the symptoms evince the presence of mechanical pressure. Anæmia and difference in temperature will not suffice to abolish the increased nervous function. Here we require the direct co-operation of the narcotic poisons, and for this reason I believe that it will be difficult to use physiologically indifferent remedies alone. However, as I have proven, cocaine, morphine and carbolic acid are active in solutions which are several hundred times weaker than those in common use."

After thoroughly testing the solutions in different strengths and combinations, Dr. Schleich advocated the following formula as producing anæsthesia with the least prodrominal pain, and without danger of narcotic poisoning:

No. 1. For operations on hyperæsthetic tissues.

℞

Cocaine mur.	.20	gr iii;
Morph mur.	.025	gr 1-3;
Natii Chloridi.	.20	gr iii;
Aq. dist. ad.	100.00	℥ iii;

M Sterilizat, addi. sol. ac. corb. 5 per cent m. ii.

No. 2 For most operations:

℞

Cocaine mur.	.10	gr iss;
Cocaine mur.	.025	gr 1-3;
Natii Chloridi	.20	gr iii;
Aq. dist. ad.	100.00	℥ iii;

M Sterilizat, addi. sol. ac. corb. 5 per cent m. ii.

No. 3. For superficial operations upon nearly normal tissues:

℞

Cocaine mur.	.01	gr 1-6;
Morph mur.	.005	gr 1-12;
Natii Chloridi	.20	gr iii;
Aq. dist. ad.	100.00	℥ iii;

M Sterilizat, addi. sol. ac. corb. 5 per cent m. ii.

All solutions, it is almost needless to say, must be kept sterile. It is better to make up a rather small quantity at a time and not keep a solution too long. A fine needle should be used, and it should be sterilized each time before being used, as from the multiplicity of the injections the danger of the infection is increased over what it is in giving a single hypodermatic injection of morphine, for instance. The solution and the syringe should be cooled to as near the freezing point as circumstances will allow, for the same solution which will produce anæsthesia when at or near 36 degrees Fah. will, when warmed to the temperature of the body, produce no such effect.

The technique of the operation is as follows: After thoroughly preparing the skin, as we would for any operation, the needle of the syringe is introduced almost parallel to the surface until the bevelled point is covered, pressure on the piston is then made, and if the needle has not been introduced too deeply a white wheal rises to the size of a dime perhaps; the needle is now introduced again at the periphery of this wheal and another produced in like manner. In this way we mark out the line of incision to any desired length. If the operation is to be a short one, not more than twenty minutes, make the line of anæsthesia broad enough to contain the line of sutures. If it is desirable to anæsthetize the deeper tissues it may be done through the skin; the subcutaneous tis-

†Translation of Dr. Schleich paper, Journal of the A. M. A. Dec. 29, 1894.

sue, fasciæ muscles, and even the bone can thus be anæsthetized.

"No tissue offers any deviation from the dictum: Every tissue is made anæsthetic that can be artificially edematized by our solutions. This holds good for skin and mucous membrane, periosteum, synovial membrane, facia, muscle, lymph glands, nerves. viscera, and even bone. A bone whose periosteum has been infiltrated in its whole circumference may be divided by saw or forceps without causing any pain."

"If during the operation we reach larger nerve trunks they may be anæsthetized for a short time by touching them with a five per cent. solution of carbolic acid, or by injecting them, if we do not care to infiltrate the surroundings. After incision in all cases the incision should be kept open by gentle and steady traction and the infiltration cautiously pushed into the depths of the wound. In amputations the nerve trunks must be anæsthetized separately.

Dr. Schleich again well says: "It is a personal error to cause a person pain with this method wherever infiltration is technically possible."

In operating on highly inflamed tissues it must remembered that the first injection should be made entirely outside of the inflamed area and then gradually approach it from one side or in some cases from all sides until the whole area is anæsthetized. Never inject inflamed tissues primarily.

Dr. H. V. Würdeman, of Milwaukee, has performed quite a number of operations with entire success by this method. Some of his colleagues, notably Dr. Thos. Hay and Dr. Burgess, have done a variety of operations, and in every case where the infiltration was properly done there was no pain.

My first operation by this method was the removal of a needle from the thenar eminence of the hand, it having been driven deeply into the tissues and broken off, requiring considerably searching before I was able to locate it. I found a little difficulty in injecting the skin in this locality as it was very thick and calloused. The operation was done without pain, however, and the wound healed by first intention.

The next case was a deep seated abscess of the labium major. The parts were highly inflamed and so sensitive that the slightest touch caused pain. The infiltration was rather tedious, but after being thoroughly done the abscess was opened and the pus evacuated without pain. An epithelioma on the left side of the nose and extending into the corner of the eye of the size of a silver quarter was removed without pain. A severe injury of the ear and side of the head was stitched and dressed without other anæsthetic. The ear in this case was cut entirely through at about its center. The amputation of a crushed finger and several other minor operations have demonstrated to me practically the entire success of the method in minor operations.

According to the statement of Dr. Schleich the limits of this method are only reached by the technical impossibility of infiltrating the field of operation. A certain amount of skill is necessary to infiltrate rapidly and accurately, which can only come from considerable experience. I am far from possessing such skill as yet, but the average physician in country or city practice can operate with a little preliminary practice by this means on all furuncles, carbuncles, sebaceous cysts, epithelioma, lipoma, deep-seated abscess, hemorrhoids, phimosis, felons, ingrowing nails, etc., suture wounds of the integment, amputate toes and fingers, etc., with no pain to the patient and absolutely no danger of poisoning and death from the anæsthetic.

It would seem from the facts which are now accessible upon this subject that anæsthesia by infiltration will replace and should replace the cocaine anæsthesia in all cases in which it is now used by injection, and general anæsthesia in a large portion of those cases in which pulmonary anæsthetics are now used. In laparotomy for removal of the ovaries, hysterectomy, cholosectomy and nephrectomy general anæsthesia cannot be replaced.

In operations for strangulated hernia, radical cure of hernia and appendicitis there is no reason why this method should not be applicable. In major amputations, while it is possible as demonstrated by Schleich and his colleagues to perform them without pain by infiltrating the tissues, yet I should judge that general anæsthesia would be preferable

in healthy subjects, but in those cases in which a general anæsthetic is contraindicated the infiltration method would be invaluable.

An argument against this method of anæsthesia might be the time it takes to infiltrate thoroughly for a considerable operation. However, as the anæsthsia takes place immediately the surgeon who has had sufficient practice could in the time which it takes for a half-dozen injections of a 4 per cent solution of cocaine to take effect make half a hundred injections if necessary. The safety of the patient moreover is above every other consideration. If this method offers a means whereby we can lessen the mortality of anæsthesia by ever so small a fraction then we as conscientious surgeons, who in every case do the best that is in our power for our patients, should use it.

Local anæsthesia by means of an ice block packed with common salt or chloride of ammonia, as first used and practiced by Dr. A. J. Mullen, would, I presume, in some cases be of considerable value, though healing might be retarded if the parts were too much frozen. I would put it down as a maxim of conservative surgery that a local anæsthetic from the use of which no possible harm could come to the patient should be used in every case possible, to the exclusion of the general or pulmonary anæsthetics. Yet there are cases of crushing injuries where dirt and grease are ground into the flesh, and which, from the nature of the injury cannot be operated upon and dressed quickly, in which the shock would be less and if the patients chances of recovery greater were a general anæsthetic used rather than a local one.

All these things must be taken into consideration and carefully weighed by the surgeon, then the arguments for and against the use of a general anæsthetic are about equal use the local anæsthetic. In closing I would again ask you to try this method and at a future meeting report your results. If we can save one human life by refraining from the indiscriminate use of pulmonary anæsthetics, then indeed is the name of Schleich worthy of being emblazoned on the pages of history as one of the world's benefactors.

HOSPITAL FOR COLORED PEOPLE.

The Frederick Douglass Memorial Hospital and Training School has lately been established in this city. The medical staff is as follows: Chief of Staff, Dr. N. F. Mossell; Head Nurse and Matron, Miss Minnie M. Clemens; Consulting Physicians, Dr. James Tyson and Dr. Roland G. Curtin; Consulting Surgeons, Dr. John B. Deaver and Dr. Thomas G. Morton; Consulting Gynæcologists, Dr. B. F. Baer and Dr. Hannah T. Croasdale; Attending Surgeons, Dr. Henry R. Wharton and Dr. N. F. Mossell; Attending Physicians, Dr. E. Clarence Howard and William H. Warrick; Attending Gynæcologists, Dr. Caroline V. Anderson and Dr. George R. Hilton; Children's Department, Dr. J. T. Potter and Dr. D. W. Odgen; Dental Surgeon, Dr. William A. Jackson; Pharmacist, Henry M. Minton, Ph. G.; Ophthalmologists, Dr. H. F. Hensell and Dr. A. A. Stevens; Resident Physician, Dr. D. W. Postles.

Twelve of the members of the medical staff above are colored people, and with exception of Dr. Caroline A. Anderson and Dr. E. Clarence Howard, Dr. William A. Jackson, Pharmacist Minton, and Dr. D. W. Postles, are all graduates of the University of Pennsylvania. Dr. Caroline V. Anderson is a graduate of the Woman's Medical College of this city; Dr. William A. Jackson, of the Philadelpeia Dental College; Henry M. Minton, the pharmacist, was the honor man of his class at Howard and graduated at the Philadelphia College of Pharmacy; Dr. D. W. Postles, the resident physician, is a graduate of both Lincoln University and Howard University, and was one of the first colored men to successfully pass the State Board of Medical Examiners. Dr. E. Clarence Howard is one of the oldest colored practitioners in the city, and is a graduate of Howard.

THE MEDICAL AND SURGICAL REPORTER

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PHILADELPHIA, SATURDAY, DECEMBER 7, 1895.

EDITORIAL.

A NOVEL PIPE LINE.

A YEAR since, in commenting upon some phases of the sensational nonsense which, ever and anon, is foisted upon the public as sanitary science, and apropos of the fad for individual drinking cups, the REPORTER was impelled to offer relief to those unfortunate ones in whom imagination quite o'er shadows common sense. It suggested a simple, economical and harmless method for outwitting those malignant micro-organisms which, in theory, ever lie in wait to devastate humanity seeking to assuage its thirst.

In general terms the apparatus may be described as consisting of a hole of any desired dimensions, surrounded with a casing of any impervious material, rigid or flexible, and fitted with a sterilizer at one end and a sucker at the other.

The superiority in every respect of this device over all others offered to avert the dangers inherent to the cup of the Holy Communion, will be evident to all who so regard it.

When this under-done crust was cast upon the waters it was in hope that it would furnish food for the minnows, and without a thought of meeting it again. But after many days it has returned, and the REPORTER is gratified to know that it has relieved the morbid fears of at least one sensitive sanitarian.

It is only a straw, but it is destined to snatch multitudes from perils unknown and therefore inconceivable. As was to be expected, the wisdom of the suggestion was concealed from the wise and prudent, and skeptical science has lost an opportunity to claim priority in introducing an inestimable boon to humanity. The revelation was indeed not to the wise and prudent.

A Western contemporary is responsible for the following:

"If current report be true, the last conspicuous personage who has taken fright at the nameless dangers that are said by some, to lurk within the holy communion cup, is the Rev. T.

DeWit Talmage; and we are creditably informed that the health of the communicants of his new charge in Washington is to be guarded in a startlingly unique manner.

"Dr. Talmage has recently been called to share with the venerable Dr. Sunderland, the labors and emoluments of the pastorate of the First Presbyterian Church of the Capitol. No church in this country draws more distinguished audiences within its portals. None whose past is more crowded with the associations of great men and events. At its chancel rail have stood, as brides, the daughters of the great, and bridegrooms who have hardened into men who have moulded the nation's policy. Here, too, have been performed obsequies over others no less distinguished, cut down while serving their country at the seat of government. These facts are recalled that the full force of Dr. Talmage's innovation may be appreciated.

"Hereafter, on Sundays when the Lord's Supper is celebrated, *straws* will be distributed in the pew racks throughout the First Presbyterian Church in Washington, and instead of any one defiling the cup, or running the risk of infection, each will extract the wine by means of a straw. It must be confessed that, in view of Dr. Talmage's well-known *penchant* for sensations, the suspicion involuntarily arises that he has seized the passing prejudice, current in some medical circles, to get himself talked about, and to initiate himself in his new place in a fittingly characteristic manner. The picture that the innovation calls to view is not so dignified as it should be. The idea of the President of the United States, cabinet ministers, judges of the supreme court, senators and congressmen adapting themselves to the new condition is a little ludicrous, and brings to mind the words of the Hoosier poet, something about 'a suckin' cider thro a straw.' But who knows? Perhaps they will think of the same thing, and the thought will carry them back to the old orchard of their boyhood, and the beautiful Indian summer days, when, careless and happy, they were, sure enough, sucking cider through a straw, and the reminiscence may avail more than any stately ceremonial."

It distresses us exceedingly to introduce any element of doubt in this scheme of sterilized sanctification, which commands less reverence than does its philanthropic promulgator. But it seems only right to call the reverend gentleman's attention to the fact that there are details, which are easily overlooked, any one of which neglected, would vitiate his desired sterility, make his straw stubble, render his entire quarantine scheme futile and a bye-word and a hissing among men. For instance, the straws must be sterilized; all persons handling them must be absolutely sterile; the pew-racks must be sterilized, and to assure this the entire church edifice, and its furniture likewise, must be made and kept sterile—to say nothing of the congregation.

We venture one more suggestion in this connection. There is but one way to accomplish the certain destruction of microbic life, and that is through the living flame,—refinement as by fire. By all means sterilize the straws before the service—by sujecting them for an indefinite period to the flames of the furnace fire. When recovered from the fire the straws will be effectually sterilized and in a condition, the only one tolerable for use in the holy sacrament of the Lord's Supper. Any qualities for protection that may be lacking in the straw sterilized thus will be amply compensated by the sincere faith and reverent devotion of those taking part in the function.

A sterilized church is an offence to Heaven and a mockery to mankind.

SOCIETY REPORTS.

CINCINNATI OBSTETRICAL SOCIETY.

Meeting of June, 1895.

[CONCLUDED.]

DR. HALL: I protest the remarks of the last two speakers in reference to non-operation and the medinical treatment of gall-stones. I don't believe any remedy will cure a patient with gall-stones. All remedies are simply for the comfort of the patients, Carlsbad not excluded. A patient operated upon not long ago, had all these remedies for twelve years, and finally had a stone driven into the common duct for nine months, profound cholemia, operation, leakage from the common duct, peritonitis, death. A perfectly easy operation for stone in the gall-bladder—such an one as we could do with perfect result ninety-four times in a hundred—was converted by delay, while seeking cure by medicinal remedies for ten or twelve years, to a desperate case, requiring a very difficult operation which was followed by death from that cause. That case does not stand alone. But the only point I wish to make is that the statement shall not go out from this Society, unimpeached, that medinical treatment is the correct treatment for gall-stones. I think it is the wrong treatment for gall-stones. I do not say the large majority of cases need surgical treatment, but certain symptoms may develop in which operation is imperative. When the patient suffers from pain, when there is obstruction, when it is plainly evident that the patient is going to be harassed and life endangered, an operation should be advised, and not Carlsbad.

DR. E. W. MITCHELL: The general practitioner will see a dozen recoveries with medicinal treatment to one needing operation, while the specialist will see cases from a rather different standpoint. So it seems to me it is well to compare notes. It is a great mistake to make operation a *dernier ressort*, because the prognosis is extremely grave when the patient is in extreme cholemia; the blood change is so pronounced that the patient will die often in spite of the relief of the obstruction. Because of the amount of change in the blood, the patient cannot rally. And so we need to balance the two extremes. I think Dr. Hall has well defined the cases which need operation. Certainly it is a mistake to let a case go on month after month or year after year. But some cases will carry a gall-stone too large to cause obstruction many years, and may carry it to death without any bad results. Often we find gall-stones on autopsy which have caused no trouble during life. I have here some specimens. These fragments represent two mulberry calculi. You can see by putting them together, they would make two very large stones. They were removed from a lady sixty-two years of age. The patient had symptoms of gall-stone several months before coming here, and was while here extremely prostrated for awhile, having several attacks. She had some hectic symptoms, indicating suppuration. As soon as the patient could be put in good condition for operation she went to Christ Hospital as a private patient, and I removed these stones. The gall-bladder was firmly adherent to the anterior abdominal wall. It was a little difficult to grasp the stones and remove them. One was fitted into the neck of the gall-bladder. The patient made an uninterrupted recovery. The fistula healed before she left my care. But I have recently had a letter from her stating she is suffering again from similar symptoms. Possibly

she has a recurrence of calculi; or it may be she is now developing malignant disease. It was impossible at that time, of course, to examine the liver or the ducts by the finger externally, as the gall-bladder was adherent all around. There is probably another stone. One of my friends, who saw the case just prior to the operation, was impressed that it was a case of malignant disease and not of gall-stone.

These specimens were from a patient sixty-five years of age. In the first case the diagnosis was quite easy, but in this case the diagnosis was obscure. The patient had a cancer of the mammary gland (carcinoma) removed. She made a prompt recovery and had no evidence whatever of return, no enlargement of the axillary glands. Her health was good up to four or five months prior to the operation. For four or five months she complained of rheumatic pains, suffered a good deal from lumbago without any definite symptoms, but never complained of any pain in the epigastrium nor in the region of the gall-bladder. She had a fair appetite and digestion, but was not so well as usually. A few weeks before the operation she was somewhat jaundiced, but there was no pain or tenderness over the region of the gall-bladder or epigastrium. Of course, the first suspicion would be that there was a malignant disease developing in the liver. This jaundice very gradually increased with the progressive loss of strength and failure of appetite, until finally she took to her bed. I could then make out a little enlargement, I thought, of the gall-bladder, and asked Dr. Reamy to see the case with me. He was inclined to think there was a possible obstruction of the gall-ducts; yet there was a possibility of cancer and of catarrhal jaundice. The question of operation was talked over at our first meeting, but was not proposed to the family until several days afterward; and it was proposed then, since the patient was progressively losing flesh, that an exploratory incision should be made. It was perhaps a week or two before we could obtain the consent of the friends to this, especially since we felt it our duty to state plainly to them that it was possibly a case of malignant disease and an operation would not benefit her. They finally consented to an operation. This case, I think, is a good illustration of the mistake of delay. During these days we were waiting to get the consent of the friends the jaundice increased considerably. The urine was full of bile, and the stools were clay-colored. Upon operation we removed these stones. One of them was pushed back from the upper end of the common duct without any great difficulty. The patient rallied and did well so far as the operation was concerned, but after some two weeks, died from exhaustion and probably from the condition of cholemia. The case, I think, is worthy of reporting in this connection, because it illustrates the mistake of putting off the operation so long. I believe if the patient had been operated upon as soon as jaundice developed, her life might have been prolonged. After death we were allowed only to make such examination as we could through the incision. There had been, after the operation, decided darkening of the stools, showing some, perhaps considerable, bile got through into the intestinal canal. The liver was but slightly enlarged, and there was no evidence, so far as we could determine by palpation, of any malignant disease whatever in the liver.

DR. PALMER: The remarks of the last speaker have induced me to speak on this subject. I have never had a case under my care requiring surgical interference. That it is required at times all must admit, but all surgical interference ought to be considered only after failures with medicinal agents, or only in very bad cases seen quite late. Many, if not most, patients seen at all early in the history of the affection are entitled to a judicious use of certain medicines, as Carlsbad waters at Carlsbad Springs, if they can afford it, or Carlsbad salts, obtainable in this country, or the salicylate of sodium, or the phosphate of sodium. There can be no question of the usefulness of Carlsbad in biliary calculi. Salicylate and phosphate of sodium have served me useful purposes. I am disposed to think that they rank much in the order named. All cases, unless very bad—so bad as to demand prompt surgical procedure—may be, probably will be, benefited by these remedies, in their use months may be profitably consumed.

Dr. Johnson asked how these remedies act. Probably by increasing the quantity and altering the quality of the biliary secretion, dissolving the biliary calculi.

Dr. Reed: I think I am acquainted with the case referred to by Dr. Zinke. It is one I was called to quite unexpectedly, and, without any knowledge that the doctor had been previously connected with it, I made a diagnosis of recurrent appendicitis. The pain was located in the right iliac region. The patient entered my hospital for the purpose of undergoing operation. For awhile she remained to overcome a chronic constipation. She developed then, signs that caused me to say we would probably find gall-stones. So I simply made the incision a little further to the side and extended it up with a little increase in obliquity, removed an adherent and catarrhal appendix through the lower end and a biliary calculus through the upper end of it, and she got well.

One other point. And I am glad that case was referred to, because it brings us to it. I must raise a protest against the undue continuance of medical treatment in obvious cases of gall-stone. I do not believe all cases should be operated upon; but I have never had a fatality to mar my record but it occurred from complications developed during the prevalence of medicinal treatment. So, while I concur that in a few cases we should give some chance of recovery without operation, yet we should not let them run through months, because fatal cholemia may develop in a week. Such cases should not wait long, because you may then have an occlusion of the ducts; but on the staining of the sclerotic, particularly in the presence of a persistent tenderness in the hepatic region, operate.

Dr. A. W. Johnstone: I have always held no man is fit to be a surgeon until he is a good practitioner and knows all a practitioner should know. There are two complicating diseases I have run across in my operative work—tuberculosis of the gall-bladder and peri-hepatitis—both of which very closely simulate gall-stone, and for which I have operated. A very large gall-bladder, filled with purulent material and containing only one or two little stones, was stitched to the skin and the patient made a nice recovery. In a year the man was dead with all the symptoms of tuberculosis. On post-mortem examination I found masses of "cheese" in the liver. The sinus had never closed, and was studded with tubercle from one end to the other. Another case was one which a good physician, sent to me to do a cholecystotomy on, last spring. I opened the abdomen fully expecting to find gall-stone, but the gall bladder was about the only healthy thing in there. It was absolutely free, and not distended. The woman had attack after attack of fever, and the only way I could account for it was that through dense masses of adhesions I felt the head of the pancreas, which seemed somewhat enlarged. I knew I could do nothing with it and left it alone. There was nothing but a perihepatitis, which runs its regular course, and whenever she went out and got a cold she would have an attack.

There are other things. I have had no less than two cases in the last few months diagnosed as gall-stones which turned out to be cases of inter-menstrual pain. I found, by watching the time of the pain, it occurred at the close of the ninth and beginning of the tenth day. I watched it three or four months. It was an inter-menstrual pain which was mistaken for gall-stone colic. The patient was a young woman who had paid little attention to herself. Another young woman was sent to me to do a cholecystotomy on, but she did not give a good history for it. The attacks came on after the birth of her child, and she had had no such thing before her marriage. The pain was located about the end of the eleventh rib. She was sent from the Pacific Coast and I kept her for several weeks, hoping she would have one of these attacks, but it would not come on. She had a decided metritis, and the appendages were somewhat damaged, but not enough to justify their removal. I finally sent her to her relations in the city, and watched her for three or four months. I let her in the meantime go to New York, hoping to bring on an attack, but no attack occurred. Then her child had convulsions and came near dying, and soon afterwards she had an attack. When I arrived she said: "I have that lump at last, and I want to show it to you." I found an absolutely tympanitic mass of

the colon. She has damaged appendages, and I found the attacks always came on, when I quizzed her closely, like an inter-menstrual pain.

Now there is another point I wish to speak about. First and foremost, we must remember we are physicians, and make our diagnosis as quickly as possible. But Dr. Reed and Dr. Hall are right—don't let the patient run down. We have the one little common-sense rule—when it is more dangerous to let the case run than to make an exploratory incision, which I believe is one-third of 1 per cent., make the exploratory incision. This often seems to be just what is needed to start the case off right. It gave me the cue to the case I have just mentioned. I would always lean to the exploratory incision, and I think it is less dangerous to make an exploratory incision than to let a patient go on jaundiced week after week.

Now to come to gall-stones themselves. I am glad Dr. Mitchell has brought these specimens to-night. The last one is nothing but inspissated bile. They are little fellows. One is nothing but dried bile, showing the patient had been on a spree or gotten the digestion a little upset, and the bile dried. The other, though, is a totally different thing. It is the kind that is capable of relief, if anything is, by medical treatment. And it puts us to the necessity of proving the negative when we say such treatment doesn't do any good. I have known men who had gall-stone colic ten or fifteen years ago, and I have nursed them through attacks, and to-day they are perfectly comfortable. I would not think of operating upon them. The large specimen presented, which is crushed, is the same thing as the tartar on the teeth. The catarrh of the intestine simply extends up into the gall-bladder, and there sets up a catarrhal cystitis, and you have the phosphatic deposit, and that I believe nothing on earth will do any good for but the knife. And if you tabulate the cases of operation I believe you will find those are the cases which require operation. The cases of inspissated bile may slip out and do no harm.

A number of words of warning about waiting too long has been given. I will add one more. A man came to me and stated the case of his brother, who had attack after attack from gall-stone, and wanted me to go down and operate upon him in the morning. I told him I would meet him at the first train in the morning. We could not go sooner. I told him, however, I thought his brother would be dead before we got there. A telegram came and turned me back with the information that he was dead. They sent me a box of stones, which had blocked the common duct. The common duct was plugged very tightly, and the other stones were driving these stones into it. We must remember that pain and cholemia are not the only things to dread in these cases.

In this, just like in every other disease, don't wait until you see the running down itself, but when you see the tendency is bad—and that may be measured by months or weeks or days or hours—remember a simple little exploratory incision is far safer than waiting and waiting and waiting until you have gone you hardly know where.

Dr. Johnston: While there are hundreds and thousands of persons possessors of gall-stones who either do not present any symptoms of gall-stones or are harrassed with pain through a long period of years and die of other causes, there are a goodly number who die of billiary calculi. I know three or four patients who died from gall-stone. In one, a woman some fifty years of age, whose trouble was diagnosed as cancer of the liver, there was found post-mortem about a pint of gall-stones. The next case occurring in the first year of my practice, was a woman who was suddenly attacked with excruciating pain and died in a few hours. She simply died of pain in spite of the free use of morphia. The third was a patient who had suffered ten or fifteen years with gall-stones. At the time I saw her I advised an operation, and told her she might die from an attack in the following week, or live ten or fifteen years and die of some other disease. Shortly afterward she had an attack and died.

It is sometimes very difficult to make a diagnosis; and even if you find stones passing in the stools you are never sure whether those stones are the last or not. If you should make an operation in such a case and find no stone, you would

be in quite a predicament unless you informed the patient that the operation is primarily exploratory. It is somewhat difficult to tell what cases to operate upon. You must study each case that comes to you from every point. The case I reported suffered four years and was twenty-two years of age. How much longer would this have gone on? Nobody knows. Would it have been right to have let her suffer every week or two from stones, when she could be relieved of a disease which might have lasted for years and years? I think in a case of that kind an operation should be done. Cases that have been icteric for only two or three weeks you can probably treat with some safety, but if they have been icteric for several years it is almost impossible to do anything with them. Now, in diagnosing stones with the aspirating needle, you can see that it would be almost impossible to strike a small gall-bladder in which there are but few stones. In the case I reported it would have been almost impossible to have struck the gall-bladder.

It seems to me if we have any remedy that will dissolve these stones in the body it ought to dissolve the stones out of the body. I have placed these stones in vials and put a great many chemicals on them and tried to dissolve them, but did not find anything that had solvent powers of any moment.

Dr. Mitchell: Did you try glycerine and olive oil?

Dr. Johnston: Yes, sir. The reason I made these experiments was to find out whether I could dissolve them, so that in case of stone in the common duct we might inject the remedy against the stone and probably dissolve it *in situ* instead of having to cut into theduct.

As it is impossible to dissolve these stones in the laboratory with drugs which would not be deleterious if introduced into the human system, I think it is useless to administer drugs for their supposed solvent power on gall-stones.

Dr. Mitchell: The fact that none of these remedies may dissolve the stones out of the body, or perhaps in the duct, is not a proof the medicines will do no good. They may so modify the bile as to change the stones or force them out, and have some action aside from their soluble properties.

Dr. Reed: Is there any conclusive evidence that any remedies will dissolve such concretions?

Dr. Johnston: No, sir.

Dr. Hall: Then, is not all treatment simply for the relief or palliation of the patient?

Dr. Johnston: No, sir.

ABSTRACTS.

THE BURIED TENDON SUTURE.

At the last meeting of the Southern Surgical and Gynecological Association, held in Washington, Dr. H. O. Marcy, of Boston, read an instructive paper upon the history of the buried animal suture, and the best methods for its preservation and use. Dr. Marcy was the first to suggest the employment of buried sutures and to demonstrate their value. His first contribution upon the buried catgut suture was published in 1870. In 1880, he substituted tendon for catgut, as in every way superior, and in many articles has called the attention of the profession to the importance of its general adoption.

Dr. Marcy stated that the defect of catgut is inherent in its structure, and it cannot be rendered satisfactory by any method of preparation. "The connective tissue sheath of the intestine of the sheep from which catgut is manufactured has its ultimate fibres disposed in an oblique direction crossing diagonally. This serves the physiological purpose of foreshortening and distention as well as strength." The violin string (catgut of commerce) is not unlike a very thin

piece of tissue silk, which has been cut diagonally and then twisted. This would make a very imperfect fish-line, and the comparison is not overdrawn. When dry, the gut is strong; but when wet, it is flat, elastic, and slippery. Chromicizing only partially remedies this defect, and sterilization by any process cannot correct the damage which the intercellular cement substance has sustained from bacterial infection, and the masceration, to which, in preparation, the catgut is necessarily subjected.

Properly prepared tendon not only escapes these injuries, but has an entirely different ultimate structure. The connective-tissue cells are disposed parallel to each other and are the strongest structures of the animal economy. Of equal weight, carefully selected tendon will sustain a tension equal to that of silver wire. Tendons taken from the freshly-killed animal are quickly sun-dried and kept dry until their final preparation. Soaked in a 1 to 1,000 mercuric solution until supple, the tendons are carefully cleaned, assorted, and dried between sterilized towels. They are then chromicized until of a dark golden-yellow color, and preserved in sterilized linseed oil to which one-tenth part of the crystals of carbolic acid has been added.

Sutures thus prepared improve with age. When desired for use they are soaked in a 1 to 1,000 solution of bichloride of mercury until supple. Preservation in absolute alcohol, boiling in it under pressure, boiling in kumol (oil of caraway seed)—indeed, preparation by any of the many methods suggested for the sterilization of catgut—serve only to injure the inherent structure of tendon, and are not to be commended.

The tendons from the tail of the smaller varieties of the kangaroo furnish by far the most valuable suture material yet found. The anatomical construction of the psoas muscles of the rat, squirrel, and the opossum is not unlike that of the kangaroo; each fasciculus having its independent tendon extending the entire length of the tail. The tendons of these smaller animals are too short and too fine for general use, those from the large kangaroo too large. The latter when sub-divided fray and are less valuable.

Dr. Marcy reported that from various sources kangaroo tendons have been put upon the market which are very defective. One lot of three hundred pounds, collected for him, was almost entirely from the large kangaroo, and so undesirable that he refused its acceptance. This has found its way into the American market, and is being distributed to the profession. Selected tendon should be furnished, all prepared, at ten dollars per hundred, although usually sold at a much higher price.

Dr. Marcy, in closing his paper, expressed the belief that all aseptic wounds, including even the larger amputations, should be closed in layers by buried tendon sutures without drainage. The edges of the skin should be coapted by means of a parallel continuous buried suture (sub-cuticular), and the wound sealed with iodoform collodion, strengthened by a few fibres of cotton.

The advantages of the buried sutures are briefly as follows: Aseptic, buried in aseptic wounds, they remain aseptic and the repair is primary without inflammation, pain, or suppuration. The iodoform collodion seal renders subsequent infection impossible. No sutures are to be removed, and no other dressing is required. The tendon is absorbed so slowly that it may be traced in the tissues months after implantation, and ultimately it is replaced by a band of vitalized connective tissue which serves as a permanent re-enforcement of the united structures.—*Boston Med. and Surg. Jour.*

Triticum Repens.

Couch Grass is an old remedy, and can be relied upon in its limited field of action. Where there is bloody urine, with no pain or soreness to indicate the exact location, and where exercise decreases the amount of blood, it proves most satisfactory; it is also frequently beneficial in cases of strangury and irritation. The infusion is apparently the most effective form for prescribing, but where this is inconvenient the fluid extract in doses of one to ten drops, well diluted and administered every hour or oftener, will perhaps answer as well. This old remedy deserves a trial at the hands of the younger physicians.—*Eclectic Medical Journal.*

DIET FOR THE SICK.

HELEN LOUISE JOHNSON.*

Without proper cooking no food is palatable, and unless the palate is satisfied, food is practically useless. Hunger compels a person to eat, and in his choice of food the palate is his guide.

In general, the needs of no two individuals can be satisfied by exactly the same diet. In sickness it is the province of the physician to adjust the food to the condition of the patient. In convalescence the taste of the individual or the judgment of the nurse, or both combined, will usually not fail of good results. Bear in mind that a sick person is not in the same condition as ourselves and, no matter how absurd his cravings may seem they may be but natural longings for that which his system needs.

In the first place, I want to tell you how to prepare beef juice. Take a pound of beef from the round and cut it very fine. Put it in glass jar and place the jar in cold water on the back of the stove, where it will slowly heat for an hour; then bring it to the front of the stove where the water will simmer not boil, for an hour.

Beef tea is made much the same as beef juice, with the addition of a cup of cold water to every pound of meat before the meat is put in the jar. The beef is also taken from the round and chopped very fine.

Beef extract and tea are entirely different things, but the distinction is very rarely known. If the patient is taking a tablespoonful of beef juice, he is taking as much nourishment as there is in a cup of beef tea.

Beef juice or extract is prepared in many different ways. In giving a lecture on soups, I explain why we put cold water on meats. The principle applies to beef tea as well as to making soups. If you add hot water it coagulates the juice, while the cold water draws out all the juice. Hard water prevents the juice coming out also. The moment that salt is added to the water, it makes it hard and does not let the juice out. If the water be very hard, soda must be added, which will make it soft.

Now, what I want to do in a "sick diet lecture" is rather to suggest what to do. Have a physician upon whom you can depend, and I can tell you nothing better for your guidance than never to have a physician unless you can place reliance on him. When beef tea might he given a patient, you must consult your physician. If the physician does not know how to prepare it, he will, at least, tell you what to prepare.

Beef juice is an important part of the sick diet. When your patient is sick a long time he often becomes very tired of it before many weeks are over, and the greatest care must be taken in the preparation of his food. Pepper must never be added to the beef tea, which is an important point in serving it. Pepper and vanilla must be done entirely away with; they have no place in the diet of the sick, unless prescribed by the physician.

In preparing beef juice you can broil the beef. I am going to take a pound of beef and show you how much juice comes from it when it is broiled. Beef tea or beef extract rarely look well unless they are colored, and consideration in this matter should be had, particularly for a patient in a reduced state.

In making beef essence or beef tea, buy the best meat, as good beef tea cannot be made from gristly meat. Take the beef from the round and put it on the broiler, and broil it only enough to start the juice; chop it fine; slowly heat it, never passing the simmering point. Beef tea and beef extract must never boil so the juices are coagulated. Season with salt, but never put in a slice of onion. Beef essence may also be made by chopping the meat from the round very fine and putting it in a braising-pan, with a bay leaf and a piece of celery. The pan may then be placed in a moderate oven, and the meat left to stand there until the juice is well started.

* Editor *Table Talk.*

The juice is then squeezed from the meat and served as in the foregoing instance. The braised beef extract tastes entirely different from any of the other juices, and it is a pleasant change when a person has to take it from day to day.

I now want to speak on the subject of gruels. The gruel is usually served as a porridge, and I first want simply to show you the consistency in which gruels should be served.

The farina gruel, which is a form of gruel that is the easiest to give because the most palatable, is prepared in this way: To a cupful of boiling water add a salt spoonful of salt; when boiling, sprinkle in one tablespoonful of farina. When it has cooked about ten minutes turn it into a farina boiler and add a cup of milk and cook again for about five minutes. Milk should never be boiled to give to a patient unless in severe cases of dysentery or other serious diseases, when it must be boiled. Milk should always be scalded. Scalded milk can be taken day in and day out. I think boiled milk is thoroughly indigestible. The moment it is cooked, after taking it a few times, even three or four times, the stomach rejects it. In cooking farina gruel in which milk is cooked, never do anything more than scald the milk. The farina boiler should be used. The farina boiler is a peninsula—a sauce-pan surrounded on three sides by water.

Whether a thing is palatable or not to a patient depends much upon how it is served, and these things are rarely served in a proper way. As much depends upon how it is served, the proper serving of it will help much toward curing the invalid. If you want to sweeten the gruel a little granulated sugar or loaf sugar may be used; pulverized sugar should never be used for the sick, and ordinarily, people do not like it. It should be remembered that gruel is a gruel and not a porridge. It should be served so that it can be poured into the patient's mouth if necessary—so that it can be poured down his throat instead of having him sit up and be fed with a spoon.

We now come to milk-punch and egg-nog. The best milk should be used. Skim milk is not food. Milk punch and egg-nog want cream or very good milk. They want that which gives energy, and skim milk does not give energy. In making milk punch scald a cupful of milk and add two teaspoonfuls of sugar to the milk and stir until dissolved, then add a tablespoonful of brandy. Never use wine unless a physician tells you to. Invalids must take stimulants entirely under the advice of a physician, never according to their own ideas. Always use brandy unless otherwise advised by a physician. After you have beaten it until it is foamy, do not fill the glass so it runs over, but fill it almost to the top. Have a small glass and fill it about full instead of filling a large glass half full. Milk punch and egg-nog are served where a person needs considerable nourishment; also where a patient needs a stimulant. Sometimes he needs more than simple nourishment and the egg and milk together make a very concentrated form of food. It can be made with the whole egg, or the yolk alone can be used. Mix the yolk with two teaspoonfuls of sugar; add one cupful of good milk, either warm or cold, and at once add one teaspoonful of brandy. Then beat this up lightly and quickly and turn into a glass.

In case of fever, anything cool assists the patient very much more than anything warm, and in such a case the cold egg-nog is very desirable. There are really very few forms of food to give a patient in case of fever. I can this evening only give you suggestions, and I am here going to suggest a few things to give under those circumstances.

The first form of egg-nog that I gave you was made with the yolk of an egg and a cup of milk and a teaspoonful of brandy. When the patient must have more albuminous food, the white and yolk must be given. The brandy will at once cook the egg—as soon as it reaches it. Eggs should be beaten stiff and dry. Egg-nog should be given slowly. If a patient drinks milk rapidly it will not be digested. When milk is given to a child or to a patient it should be taken slowly, not rapidly, in order to nourish the patient who takes it, and egg-nog should be taken in the same manner. The third form of fluid food is wine whey. It is often prescribed by physicians, but many people have not the faintest idea what the physician is talking about. Wine whey is very simple

to make. If you are in a hurry put a cupful of milk in a farina boiler and let it scald; add a quarter of a cup of wine, and let it stand until the albumen of the milk is curdled. When you strain it you have the whey without the curd. Very often physicians give the curd with the whey. The curd must then be chopped very fine or pressed through a sieve. Only a small portion should be given.

I shall now talk of convalescent food. The first is the ever-present beef tea, which can be changed from day to day. It can be flavored with a bay leaf or a little celery, or, when the physician will allow it, with a little tomato.

In preparing an egg for a patient it is best to use an egg cup, which obviates the necessity of experimenting with many eggs to obtain the proper consistency. Break the egg and put it into the cup until it is boiled to the proper consistency. Boiled eggs for patients should always be boiled soft; never hard. When you boil an egg hard the white, the albuminous portion of the egg, is coagulated, and the yolk often remains soft. That is not the proper way of preparing it. The yolk of the egg when soft is perhaps not very unpleasant to the taste, but the white of the egg improperly boiled is exceedingly unpalatable. The white and the yolk must be boiled alike. In boiling an egg for an invalid it should be put into an egg-cup so as to see the consistency.

Poached eggs may be given convalescents. In poaching an egg separato the yolk from the white. Boil the white first by slipping it on the water, and as soon as it begins to coagulate drop the yolk on to the white. Poached eggs are very pretty and digestible, and when perfectly prepared are very palatable. The white is not palatable when almost raw, and, as said before, though the yolk is not so bad when but partially cooked, it should have the proper consistency and be rightly prepared for the sick. Eggs should be served poached or boiled; in no other form.

Broiled beef pulp might be mentioned next. I do not mean Hamburg steak, but simply the pulp of beef broiled. It is very pleasant to the taste, and is prepared in this way: Take a pound of raw beef from the round, and with a sharp knife scrape across the grain until the pulp is scraped from the fibres; make it into small cakes and broil it over a hot fire. When thinly spread on delicate slices of bread it is very palatable.

Chicken, game, steaks and chops may be given convalescents. There is but one way of broiling steak for the sick, and that is the English way. Three chops are broiled, placed as an under, upper and middle slice, and the middle one only is given to the patient.

There are very few patients who cannot be given ice cream. People who are ill crave such things, and very often their cravings are a proper guide. I know a case in which ice cream saved a patient's life. Ice cream can be taken before anything else to a patient in a hospital. Rice may be given, but never unless it is cooked properly. Never give any one who is sick anything fried. Never fry a beef steak. Fried potatoes, it is perhaps needless to say, should never be given a sick person. Very often an invalid desires things that seem absurd, but they only seem absurd because we cannot put ourselves in the place of the patient. We have our ideas of how they should feel and not their ideas of how they do feel. Sometimes their desires may be just what the system needs.

Above all things serve the food daintily and prettily to a patient. His appetite is greatly influenced by the appearance and the manner in which the food is served, and nothing can be too good for our sick.—*Practical Medicine.*

Black Haw in Abortion.

After employing in several cases, I find that, contrary to the generally accepted opinion, this remedy does not always prevent miscarriage; may sometimes even occasion, or at least often accelerate it when already begun. The hæmostatic action of the drug, however, was constantly observed, but in every instance after the first day uterine contractions followed, favoring the commenced abortion. In three cases, directly after the administration of a dose, contraction of the external os was observed. I therefore believe that although Viburnum may occupy a prominent place in the treatment of diseases peculiar to females, it is not without a degree of danger where there is threatened abortion.

CURRENT LITERATURE REVIEWED.

IN CHARGE OF SAMUEL M. WILSON, M. D.

Meningitis as Found in Country Practice in Louisiana.[1]

There are four points in connection with meningitis which I desire to establish beyond question. These points are:

1st. That meningitis exists in our midst unrecognized, occurring at short intervals from time to time, and that many of the cases reported to have died with congestion, as a complication of malaria and other diseases, if they had been properly treated, would have survived to have proved by subsequent developments their meningeal origin.

2d. That the sporadic, when idiopathic, and the epidemic are probably but different forms of the same disease.

3d. That the plan of treatment that I have laid down is both scientific and successful.

4th. That the opium treatment is both unscientific and unsuccessful.

The necessity of discussing a disease in connection with its environment does not seem to be fully appreciated by the profession. Although I have been treating meningitis for seventeen years I have found difficulty in deciding which of my cases were of the epidemic and which of the sporadic variety. Why can not these cases represent one and the same disease under different circumstances, of course excluding the cases of secondary meningitis? Meningitis, under certain circumstances, seldom produces an eruption.

Seventeen years ago I encountered this disease and lost my patients as fast as I got them. I lost two in one day. Finally, with the assistance of a neighboring physician, I succeeded in saving two. Some time after this I succeeded in saving about half, and now to lose a case, which has survived the first shock, is the exception. It is my impression that few practitioners among us recognize this disease, or only recognize it when it is too late to save the patient, and it is that impression which has prompted this article. The premonitory symptoms often occur in time to enable the practitioner to ward off the disease entirely; or, failing in that, sometimes the disease is aborted. When I suspect the brain, I treat for that malady until I can make out the diagnosis; it is seldom the patient's life is risked by this plan. The question of diagnosis cannot be dwelt upon in this article, and the points untouched are sufficiently explained in the text books. The fretful condition of the patient, the constant headache, the gradually developing impairment of the mind, and the hallucinations, with a temperature too low to account for it by typhoid fever, the hydrocephalic cry and opisthotonos mark the course of the gradually developing variety. The high fever, spasms, or collapse coming on suddenly with serious impairment of the brain, fever continuing several days and subsiding, leaving the brain no better, and opisthotonos, sometimes marked by hydrocephalic cry, small and corded pulse, and temperature often falling below normal, mark the other form.

In my experience, pneumonia, occurring after the second week, very materially modifies the disease. The function of the brain is soon restored, the pneumonia runs a mild course, and when resolution sets in convalescence begins.

In the treatment of this malady, we must never let the symptoms divert our attention from the real condition of the patient. The indications are to relieve the nerve strain and to promote quiet sleep as a means to this end, to lessen inflammation by reducing the blood supply to the affected organs, to relieve hyperæsthesia and tetanic muscular contractions, to sustain the vital powers and to avoid all remedies that would irritate or impair the brain, promote stupor or impair digestion. After the acuteness of the attack begins to subside we must institute measures to repair the damage done. I fear this precaution is often overlooked or too long delayed.

Called to a patient with this disease, if a small child, I give calomel, then bromide of potassium, and, if the fever is high, some simple fever drops. If the child is large or the symptoms severe, I give chloral hydrate with the bromide, using Young's rule of dosage, and estimating the adult dose of chloral at fifteen grains and of bromide of potassium at twenty or thirty grains. I repeat every three hours, if necessary, and seldom go above the dose I have indicated. If there is severe headache, and it fails to yield to the above prescription I give ergot. Adult dose of ergot is ʒi of fluid extract. I have seen ergot promptly relieve spasms when all the usual remedies, including opium, had utterly failed. Whenever stupor comes on, at any stage of the disease, I use small blisters back of the ears. I have found these increase excitement if used too early. When, as is usually the case, there is spinal irritation, I use cold applications to the head and counter-irritation along the spine and back of the neck by croton oil diluted with turpentine.

It is very important to begin treatment for the effusion as early as possible, so as soon as the fever declines, or in cases where fever is not prominent, I begin at once with iodide of potassium, four grains, and tincture of belladonna eight to ten drops (to an adult), every four or six hours, I seldom begin the use of these before the fourth or fifth day of the disease.

Belladonnæ materially assists the bromide of potassium and the chloral in relieving pain and quieting the patient, and my results warrant its use with the iodide also. Under this treatment patients usually have good appetite and good digestion throughout the disease.

I never give quinine in this disease. When the brain symptoms begin to subside I sometimes give to an adult three doses daily of not more than two grains each of cinchonidia, given three hours apart for two days, when there is a malarial or decidedly periodical disturbance. I am satisfied that hundreds of children throughout the State are sacrificed every year by the indiscriminate use of quinine. Alcoholic stimulants often seem indicated, but are rarely tolerated in any form, and even carbonate of ammonium is often irritating to the brain.

[1] Dr. I. T. Young. *New Orleans Medical and Surgical Journal*, October, 1895.

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M.D.

MEDICINE.

Three Mistakes.

Mothers adhere rather persistently to three mistakes in feeding babies: (1) They give the food too concentrated. (2) They give it too frequently. (3) They give it in too great quantities. These are mistakes of the head, certainly not of the heart, for their great fear is that the baby will starve.—*San. Inspec.*

Food and Drink.

To the thoroughly healthy person who can supply himself with any kind of food desired, the natural demands of the appetite afford the safest guide for both quantity and quality. A mixed regimen of animal and vegetable food is the natural diet. In the most valuable kinds of food the carbohydrates (starch and sugar), fats, albuminous and inorganic substances are present in certain proportions Milk, bread, eggs, beef, mutton and fowl are rich in albumen. Certain vegetables, such as potatoes, beans and peas are valuable for their starch and albumen. The potato is practically starch, while the legumes are rich in albumen. The pulpy and succulent fruits and vegetables are valuable for their watery and saccharine juices.

The herbaceous substances, spinach, lettuce, celery and the sweet fruits may be eaten in a cooked or uncooked state, and are a valuable addition to a nutritious diet in supplying the salts of the vegetable acids.

On the average, less food is required in warm weather than in cold. The quantity much depends upon the amount of physical activity.

The average American eats most injudiciously. To even the moderately prosperous all the dainties of the world are within reach. The supply offered is out of proportion to the need. The dainties tempt the appetite, and, as a result of frequent yielding, many varieties of stomach disorders are developed, and the unhappy, morose, melancholy dyspeptic is created.

The dyspeptic is an example of excess,—excess in eating or drinking, or both. The points to be observed in eating are these: Adhere to a rational diet. Take food at regular intervals; eating between meals is a pernicious habit, giving the stomach no opportunity for rest. Eat slowly, masticate the food thoroughly, and, above all, do not overeat.

It is impossible to lay down iron-clad rules as to what shall and what shall not be eaten. The intelligent person learns from experience the foods which agree and disagree with him.

Water is the best beverage, and it is well to drink copiously of it between meals. Especially is it wise to take a glassful a couple of hours after eating. Avoid drinking ice-water before meals; it reduces the temperature of the stomach and retards digestion. All forms of alcoholic beverages are to be avoided. Even small amounts of alcohol prolong and hinder digestive processes, and increase the temperature of the body by diminishing the oxidizing power of the tissues.

Drink lemonade in moderation; drink koumiss, drink ice-cream soda, but drink it in moderation; the danger of it is in excessive indulgence. As is well known, the sweets produce fermentation. Drink milk if it agrees with you. Avoid fried foods and pastries; eat boiled or baked meats and fowl, soft-boiled or poached eggs, well-cooked and digestible vegetables, broiled and baked fish, cold light bread of wheat, Graham or entire wheat flour; all varieties of fresh vegetables, except radishes and cucumbers, plenty of fresh ripe fruit, but avoid fruit at all deteriorated in quality. Ices and ice-cream are delicious and nourishing articles of diet. But in eating them, moderation is ever the watchword.—*Annals of Hygiene.*

GYNECOLOGY.

Resuscitation of the Apparently Still-born.

Dr. Pinard, in the *Gaz. Méd. de Paris*, 1895 (quoted in *Centralbl. f. Gynæcol.*), gives an account of 50 cases of apparently still-born infants; of these, 44 were restored, though 19 died later. In most cases, clearing the air-passages and insufflation of air, along with stimulation of the skin, were enough. In 6 cases, where these means failed, tractions on the tongue gave good results. Dr. Pinard recommends, at the same time, that the traction should be made with the fingers, not with a forceps.

Dr. Laborde relates a case observed by Dr. Guies, in which a child was restored by tractions on the tongue after a delivery with forceps. While the doctor was attending to the mother the child ceased breathing, but was again restored by rhythmical tractions on the tongue. Tarnier, Gueniot and others admit the ease with which this method may be carried out without the help of instruments, but still make use of insufflation of air by catheter. This, they maintain also, may act reflexly in exciting the respiratory reflexes.

NEWS AND MISCELLANY.

Holiday Excursion Rates on the B. & O.

In pursuance of its usual policy, the Baltimore & Ohio Railroad Co. will sell excursion tickets between all stations on its lines East of the Ohio River, for all trains December 21, 22, 53, 24, 25, 31 and January 1st, valid for return journey until January 7th, inclusive, at reduced rates.